

(425)

$$\lim_{n \rightarrow \infty} \frac{3n^2}{n^2 + 2n} = \lim_{n \rightarrow \infty} \frac{n^2 \cdot 3}{n^2 \left(1 + \frac{2}{n}\right)}$$

$$= \lim_{n \rightarrow \infty} \frac{3}{1 + \frac{2}{n}} = \lim_{n \rightarrow \infty} 3 \cdot \frac{1}{1 + 2 \cdot \underbrace{\frac{1}{n}}_{\xrightarrow{n \rightarrow \infty} 0}} = \underline{\underline{3}}$$